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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,811	02/21/2006	Thomas Kleinbeck	R.306719	7234

2119 7590 03/27/2007  
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ALEXANDRIA, VA 22314

EXAMINER
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GIMIE, MAHMOUD

ART UNIT	PAPER NUMBER
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3747

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Supplemental Office Action Summary

Application No.

10/568,811

Applicant(s)

KLEINBECK ET AL.

Examiner

Mahmoud Gimie

Art Unit

3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 7-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7, 8, 13, 14, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 9-12, 15-18 and 21-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: The specification contains references to claims such as in paragraph [0002], line 2, where it recites "defined by the preamble of claim 1", which do not contribute to the written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, or set forth the best mode contemplated by the inventor of carrying out his invention.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Stiefel et al. (5,937,734).

Stiefel et al. disclose a high-pressure pump for a fuel injection system of an internal combustion engine, the pump comprising a rotationally driven drive shaft (14) including a shaft portion (27), embodied eccentrically to the axis of rotation (A) of the drive shaft, a ring (28) is rotatably supported on the shaft portion, at least one pump element having a pump piston (35) resting at least indirectly on the ring (28) and driven at least

Art Unit: 3747

indirectly in a reciprocating motion by the drive shaft (14) via the ring, and a coating of a friction reducing paint (40') on the ring at least on the outer face facing away from the shaft portion in at least one region (34) in which the at least one pump piston (35) rests at least indirectly on the ring (28); see figures 1,2 and 4.

Regarding claim 8, the invention further comprising at least one flat face (34) on the circumference of the ring (28), on which flat face the pump piston (35) rests at least indirectly and which is provided with the coating of friction-reducing paint (40').

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13,14,19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stiefel et al. (5,937,734).

Stiefel et al. disclose all the limitations as applied to claims 7 and 8 above, except for approximation of the diameter of the friction-reducing paint and the ring (28) comprising carburized steel (16MnCrS5).

Regarding claims 13 and 14, Stiefel et al. do not approximate the diameter of the friction-reducing paint.

However, it would have been an obvious matter of design choice to approximate the diameter of the friction-reducing paint to a range of 10 to 50  $\mu m$ , preferably 15 to 30  $\mu m$ , since such modification would have involved a mere change in the size of a

Art Unit: 3747

component. A change in size is generally recognized as being within the level of ordinary skill in the art; In re Rose, 105 USPQ 237 (CCPA 1955).

Regarding claims 19 and 20, Stiefel et al. do not teach the ring (28) comprising carburized steel. However, they teach the bearing sleeve supporting the ring (28) comprises a metal (col. 3 and ll. 17-21) and coating on the ring is made of carbon (col. 5 and ll. 23-33).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include carburized metal in the composition of the ring as suggested by Stiefel et al. The motivation to do so would have been to make the ring from a high temperature resistant material, col. 5 and l. 27.

***Allowable Subject Matter***

6. Claims 9-12, 15-18 and 21-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The primary reason for allowance of claims 9-12, 15-18 and 21-26 is the inclusion of the limitations of "wherein the ring, at least in the region in which the coating of friction-reducing paint is applied, comprises a nitro carburized surface layer (58), onto which the coating of friction-reducing paint (56) is applied" that the prior art of record neither taught nor suggested.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahmoud Gimie whose telephone number is 571-272-4841. The examiner can normally be reached on Monday-Friday between 7 a.m. -3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen K. Cronin can be reached on 571-272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MG

  
**MAHMOUD GIMIE**  
**PRIMARY EXAMINER**